

SAIC and Ecology Review Comments
Work Plan, Interim Action, 2010 Focused Soil Excavation
North Boeing Field, Seattle, Washington
(Landau Associates, July 13, 2010)

General Comments:

- Since the focused soil excavation is considered an interim action, the work plan needs to address the requirement of WAC 173-340-430(7). Some of these requirements may be met by referencing other documents, such as the work plans for and results of investigations in the proposed soil excavation area.
- Because this work is being conducted under an agreed order, the work will be exempt from most of the procedural requirements of local and state permits. However, the State Environmental Policy Act (SEPA) may need to be addressed as part of this work. Depending on the volume of material to be removed, a SEPA checklist may need to be prepared.
- A section needs to be added to the work plan that addresses haul routes and disposal of contaminated soil. Haul routes need to be established such that there are minimal impacts to residential streets.
- PCBs in soil are known to be prevalent in the fence line area at depths down to the range of 4 to 6 feet bgs. Historical groundwater depths in nearby wells GTSP-3 and GTSP-5 for the dry season (using 8/2/06 data) are approximately 4.1 ft and 4.6 ft below the well casing. Therefore, the water table in the fence line area of NBF may be at this depth or even shallower during the proposed soil excavation. The proposed excavation would thus represent only a partial removal of PCB-contaminated soil in this area, and further (deeper) excavation would likely be required at a later date. To avoid the need for re-excavation, Boeing must plan for excavation of contaminated soil based on historical and recent soil sampling data, regardless of groundwater depth.
- Although the Focused Soil Excavation Work Plan states that soil will be removed only exterior to buildings and other structures or equipment, the Focused Soil Investigation plans include soil samples collected under buildings and in other areas with potential obstructions to excavation. Also, deeper samples (deeper than the water table) are being collected and analyzed during this soil investigation. With regard to cleanup decisions, the work plan must indicate how these areas and depths will be addressed and remediated if PCB contamination in soil is identified.
- The Focused Soil Investigation Work Plan also included analysis for mercury in some samples within the Building 3-302 area. With regard to cleanup decisions, the work plan must indicate how metals contamination in soil will be addressed.

Section 1.1:

- The objective of this interim action is to eliminate the potential migration of contaminated groundwater into the NBF storm drain system. PCB-contaminated groundwater has been detected on the Georgetown Steam Plant (GTSP) property and in seepage into a manhole on the North Boeing Field (NBF) property. These detections have documented that PCB-contaminated groundwater has infiltrated the storm drain system at NBF and has been discharged to the Lower Duwamish Waterway (LDW), therefore a soil to groundwater to surface water pathway exists on the site. This pathway needs to be evaluated to establish removal levels for this interim action. Applying MTCA equation 747-1 and an interim value of 0.014 ug/L for PCBs in surface water results in very low removal levels for soils in the vadose and saturated zones. As an alternative to using the equation for determining the limits of contaminated soil removal, Ecology will allow the use of empirical groundwater data to establish the limits of excavation. This will only be considered if there is sufficient data provided that establishes the full extent of contaminated groundwater in the fence line area.

Section 2.1:

- The work plan needs to state what the criteria will be for placement of a layer of activated carbon and geofabric.

Section 2.2:

- This work plan indicates that confirmation samples will be collected in “all areas below locations where soil with total PCB concentrations equal to or greater than 50 mg/kg are removed.” It is not clear whether the decision to collect confirmation samples will be based on the limited results from the Focused Soil Investigation, or from all relevant historical sampling data. This section needs to be clarified to state how confirmational samples will be collected to document compliance with MTCA and interim action removal levels.

Section 3.1:

- This section of the work plan uses the term “remediation levels”. The description of remediation levels in WAC 173-340-355 indicates that this term is not appropriate to use for this interim action. The term interim action removal levels is most appropriate and needs to be used for this interim action.